

## MEDICINE

### Vagotomy

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Much has been written since Lester R. Dragstedt re-introduced vagotomy in the treatment of peptic ulcer and the last word is far from being said. What follows is a summary of some recent papers on the subject.

S. Wolf and W. D. Andrus in *Gastroenterology* (8:4) publish observations made on a patient with esophageal carcinoma, whose gastric mucosa could be observed and manipulated through a Glassman gastrostomy. Prior to operation for removal of the tumor the patient's stomach was seen to be normal in color and motor activity was normal. The patient could recognize changes in temperature and pressure. After repeated instrumentation the patient became irritable and angry. The mucosa was then seen to be hyperemic and edematous, and further aggravation (by talking about his domestic affairs) produced exaggerated motor activity and turgidity to the point of minor bleeding.

At operation an unsuccessful attempt was made to remove the tumor and so bilateral vagotomy was performed. Subsequent observations of the inside of the stomach were made on the 17th, 19th and 21st post-operative day. On these occasions no spontaneous waves of forceful gastric contractions were observed. Tests for temperature and pressure gave responses identical with earlier results but rage no longer caused the changes noticed previously.

This further confirms that the vagi do not carry efferent sensations in man, but do carry impulses to the intestinal tract from the centres of emotional control.

Hawkins and Hooker (*Surgery* 22:2) report their experimental and clinical experiences. Mann-Williamson procedures were performed on 22 dogs. Eleven per cent of those on whom coincidental vagotomies were done developed peptic ulcer, while 85% of controls with intact vagi developed ulceration. In a series on rats which underwent pyloric ligation, all those without coincidental vagotomy showed ulceration at the time of sacrifice, while all vagotomized animals had intact mucosae.

This points out the value of vagotomy against peptic ulceration, but can one safely apply the result of an acute experiment in animals to so chronic a process as peptic ulcer in man?

Of their results in patients they claim four failures in a series of 36 cases (11%). Two of their failures showed reactive insulin tests (Hollander), possibly indicating the incompleteness of the procedure.

Symptomatic changes following operation have been:

1. Marked relief of pain—present in all cases.
2. Relative diarrhoea—which may be only a return to normal bowel habit or actual looseness. It improves with time.
3. Gastric retention—may be symptomless. Some cases respond to Urecholine.

Walters Hallenbeck and Priestly (*Proceedings* 22:15 and 22:16) are not favorably impressed with the operation. Walters would use it only in the treatment of recurring ulceration after resection of the stomach. Hallenbeck and Priestly report two unsatisfactory results due to hemorrhage and retention. The Mayo workers question the wisdom of discarding tried and satisfactory methods in favor of an operation not yet proven to be of equal value.

Orr and Johnson (*Lancet* 3:2:47) concisely review the treatment of duodenal ulcer prior to vagal resection. They give some interesting and probably ill appreciated statistics:

1. 65% of medically treated patients relapse within two years.
2. 20% of ulcer patients are intractable when first seen, of which  $\frac{1}{4}$  perforate,  $\frac{1}{4}$  become obstructed, and  $\frac{1}{2}$  come to surgery for hemorrhage or intractable pain.
3. Though some authors claim a mortality of 1%-2% following gastrectomy it is unlikely that the overall average is yet below 5%.

During their summary for the procedure they include a history of the operation and draw our attention to these facts:

1. During nocturnal gastric secretion the acidity reaches very high levels, sometimes twice as high as those obtained with the use of histamine.
2. Dragstedt found that vagal section on dogs reduced the resting secretion to less than half and would considerably lower gastric activity.
3. Division of the vagi at the lower end of the esophagus eliminates the psychic phase of gastric secretion but does not alter the response to ingested food.
4. Duodenal ulcer distress is felt only when the duodenum is actively contracting, and it is possible

by prevention of spasm that vagotomy gives immediate symptomatic relief.

In their opinion, vagal resection is indicated for stomal ulcer, or in the young patient with a long history of relapses, a clear anxiety factor, not much scarring or penetration, in whom it is felt that medical measures are not maintaining a tolerable and reasonable level of usefulness and enjoyment of life.

The procedure they favor is a per-hiatal vagal resection done trans-abdominally. Their results in cases showing complete resection by the insulin test were excellent in 30, good in 4, with no failures. Their reactors to the insulin test (32%) seem unusually high.

The authors conclude as follows:

"We do not yet know the long term results of vagal resection, but it will not spoil the chances of successful gastrectomy in any patients who in the future may relapse. In other words, vagal resection may be looked on as a reconnaissance in force in the war against duodenal ulcer. Little is lost if, on occasion, it fails, and we still have at our disposal the full scale attack of gastrectomy with all the risks involved by such large scale operations. A lasting success by vagal resection is a triumph of physiological strategy, and a failure

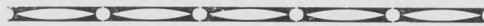
spells disappointment but not disaster. A failure following gastrectomy, however, is an irretrievable reverse in which much has been sacrificed without hope of withdrawal."

♦

The value of vagotomy must be gauged, first by the good it can do and, second, by the harm it may do. Ruffin and Cathcart Smith regard it as "probably the best answer that has yet been offered to the medical profession in the treatment of chronic or intractable peptic ulcer." The Mayos feel that it is useful but only in a limited way. Orr and Johnston are enthusiastic. Obviously then it can be useful in the management of medical failures. But along with true failures of medical treatment must be included the many patients who fail to follow any prescribed regime, and possibly the many more doctors who fail to understand the patient and try to integrate that regime with the daily life he must lead.

However, as a surgical procedure, in the great majority of patients it does have two great clinical values (1) complete and immediate relief from pain and (2) it causes the ulcer to heal. Yet, the ulcer patient has a generalized systemic illness. Vagotomy may stop his gastric and duodenal mucosa from ulcerating, but will it cure his illness?

## GYNECOLOGY



### Abstract

Novak, E.: Cancer of the uterus, J.A.M.A., 1947, 135: 199, Sept. 27.

The author prefaces his remarks on the specific problem at hand by a general review of the cancer problem as a whole. Great advances have been made since cytopathology became established. The recognition of such aspects as infiltration and extension, lymphatic invasion and metastatic spread have aided the surgeons in their attack on the disease. But, despite refinements of surgical technique plus the use of such therapeutic adjuncts as transfusion, chemo-therapy and antibiotics, there is still a limit beyond which surgical procedures are ineffective. It was, therefore of immeasurable help when radium became available first for palliative treatment and later as a means of primary attack in the disease. The evaluation of the relative importance of surgical procedures and radium therapy in treatment of uterine cancer has been difficult because of the very nature of the disease, the lack of standardization of pathological and clinical studies and the length of time required to test the efficacy of the various plans of treatment. All science has been mobilized against the problem in an effort to discover the cause of cancer, but it is not im-

probable that a means of cure may be found before the cause is found. No one denies that present surgical or radiotherapeutic measures are, at best, temporary makeshifts rather than assured means of cure.

Cancer of the uterus is one of the most important problems to be dealt with by the Gynecologists today. Cancer in general has become second in importance as a cause of death being exceeded only by cardiac diseases.

This paper is a review of the problems of cancer of the uterus, and it deals with the subject under the following headings: cancer research, pathology, diagnosis and treatment.

### Cancer Research

There is a growing feeling that the cause of this disease is intracellular rather than some extraneous influence. What transforms the normal cell into the cancer cell is not known. It is felt, however, that groups of cells rather than single cells undergo this mutation. While pathologists feel that cancer is not a single disease but a whole group of diseases, one cannot help but feel that a common denominator does exist. What part heredity plays in cancer development is a moot point, but no one will deny that the genetic factor is important in the transmission of a

predisposition to the disease. This heredity predisposition may be all that is necessary, or predisposition plus the factor of chronic irritation may be required, or the predisposition may be so minimal that no amount of local irritation will cause the disease. These considerations are important as applied to carcinoma of the cervix because the majority of gynecologists recognize chronic irritative lesions of the cervix as most important in predisposing to this condition. However, cancer does develop in cervixes that are grossly normal or nearly so. This does not disprove the prevailing ideas, but simply means that in some susceptible individuals, cancer does develop in the absence of the factor of chronic irritation. Much discussion has been centred around the carcinogenic properties of hormones more particularly of the oestrogens. No case of cancer has been reported where the evidence that oestrogens has been the primary factor involved is irrefutable. However, so long as the possibility exist that the oestrogens are carcinogenic it appears that their use as therapeutic agents should be restricted or avoided altogether. This is particularly so in the patient who, through heredity or through the presence of some other factor, might be predisposed to the development of carcinoma. It is assumed that oestrogens are not the actual exciting cause, but that they are important when acting along with some as yet unknown factor.

### Pathology

The use of the term "precancerous" has been used to denote lesions that are merely predisposing, such as chronic irritation in the cervix. Such a loose application of the term is erroneous and must be avoided. The correct application of the term is to cases which are histologically borderline and where microscopic diagnosis is difficult. This difficulty arises since the change from a normal cell to a cancerous cell is likely a brief process, thus making the histological appearance of the actually cancerous cell identical with its appearance before it assumes its invasive property. This is well exemplified in the much discussed pre-invasive carcinoma or carcinoma in situ of the cervix. The recognition of the condition as an entity has served to stimulate the search for the early stages of the disease which antedate actual histological invasiveness.

The increasing number of biopsies and specimens from diagnostic curettage is real evidence that such a search for the early lesion is going on. Biopsies of the cervix are not now taken to prove a clinical diagnosis of malignancy, but rather in cases where accurate clinical diagnosis can be made. This intensive concentration on the cervix has resulted in the recognition of early invasive

cancer as well as of the lesion in its pre-invasive state. The author feels that the pre-invasive lesion is the beginning stage of cervical carcinoma, that cervical carcinoma may have a long history (15 to 20 years) divisible into pre-invasive and invasive stages, that during the pre-invasive stage it is clinically benign and curable by simple excision, and that when pre-invasive carcinoma is found at biopsy further biopsy study may show definite invasiveness at some point, thus fulfilling the criteria for the diagnosis of genuine early cancer.

In biopsy of the uterus one encounters all stages of transition between simple hyperplasia and adenocarcinoma. The ordinary hyperplasia or Swiss-cheese endometrium is not in the least like adenocarcinoma. But there are cases of hyperplasia which histologically show decidedly a typical gland pattern, epithelial overactivity and stratification. These cases are so much like adenocarcinoma, that one cannot afford to take a chance on conservative therapy.

### Diagnosis

The Schiller test and Hinselmann's colposcopic technique have never found a place as aids in diagnosis of uterine cancer on this side of the Atlantic. The more recent introduction and application of the vaginal smear technique in the diagnosis of uterine cancer is gaining popularity. It has its limitations in that it requires the services of an expert cytologist to make a correct diagnosis from a single cell or a clump of cells in the smear. It may become a useful procedure as a screening test. However, biopsy still remains the one decisive diagnostic procedure.

### Treatment

There are many conflicting opinions in regard to treatment of carcinoma of the cervix. The attack on the cervix may be divided into three eras. The first was the era of primary surgical attack where the radical technique devised by Wertheim came into use. Wertheim's immediate mortality was 12% and the figure was much higher in the hands of those less experienced in the application of this very radical method of treatment. With the discovery of radium came the second era, where radium was used as a palliative means of therapy in the cases unsuitable for operation. Later as enthusiasm for radium therapy increased, it came to be used in cases that were borderline as far as operability was concerned and later still as a primary agent for the treatment of the earlier cases which heretofore had been proper candidates for radical surgery. As its use became extended it was found that radium could cure about the same number of cases as could the most radical surgical procedures with almost no immediate mortality and a far lesser



incidence of post-therapeutic complications. Thus it came about that radium became the method of choice, for many years, in the treatment of carcinoma of the cervix. Gynecologists are now passing through a third era, one of combined surgical and radiotherapeutic attack. This method of combined treatment is applicable only to the stage 1, and a few of the stage 2 cases. Most of the stage 2 cases, and all of the stage 3 and 4 cases are still handled exclusively by means of radiotherapy. This means that the proportion of cases suitable for combined method of treatment is limited indeed, and radiation treatment of carcinoma of the cervix is the one most often used and with excellent results.

The treatment of carcinoma of the corpus uteri is simpler than that of the cervix. Here, there is more uniformity of thought as regards the general principles of treatment. Again surgical treatment was used in the days before radiation. When radium became available it was used for a short time, as the sole means of treatment, but was found not to be as efficacious as the com-

bination of radiation and surgery. The situation at present is that this combined plan of treatment has established itself as far superior to radiation alone or surgery alone. The greatest controversy so far as treatment of cancer of the body of the uterus is, as to whether radiation by means of x-ray or by means of radium is more efficacious. There is, however, no doubt that panhysterectomy preceded by radiotherapy will give the best results in these cases.

Finally mention is made of popular education in the control of malignancy of the uterus. The responsibility for early diagnosis and treatment lies alike with the patient and the doctor. The patient must be educated to seek advice early in the presence of any abnormality and to have a regular examination in "cancer detection clinics." The medical profession must be educated to recognize the disease early and to treat it early and intensively.

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## TUBERCULOSIS

### Rehabilitation of the Tuberculous in Manitoba

S. C. Sparling

Rehabilitation Officer, Sanatorium Board  
of Manitoba

Rehabilitation may be defined as "the process of restoring the disabled to the optimum of physical, mental, social, economic and vocational adjustment." The primary aim therefore in this service to tuberculosis patients is their restoration to a happy and useful working life and to a happy and satisfying social life as rapidly as health permits.

In discussing rehabilitation it is well to keep in mind that the man or woman with tuberculosis must be considered as

1. A sick person to be restored to health.
2. A member of a family, sharing the family's problems and limitations.
3. A potential worker, to be restored insofar as is possible, to his place in the community.

Sir William Osler said "Tuberculosis is a social problem with a medical aspect," and truly in the rehabilitation of patients with a reactivating disease like tuberculosis the socio-economic factors are extremely important. The National Health Survey disclosed four times as much tuberculosis for those in the income group of less than \$1,000.00 as those earning \$3,000.00 or over.

With these problems in mind, the Sanatorium Board of Manitoba set up a rehabilitation pro-

gram in 1942 with Mr. T. A. J. Cunnings as director. The program was extended so that the St. Boniface Sanatorium and the King Edward Municipal Hospital received the same service as the Manitoba Sanatorium.

There are three main factors in the Manitoba program: Vocational counselling, vocational training, and placement direction and assistance. Specialized Vocational guidance is necessary because many patients have come direct from school and have no work experience; many others have to change their occupations. In the case of persons who have some physical handicap, it is doubly important that ambitions be properly guided. Training is essential because as far as possible ex-patients seeking employment should be prepared to offer superior skill to offset any physical handicap. Placement direction and assistance completes the cycle.

Since its inception the Manitoba Division has avoided duplicating and overlapping the work of other established social agencies. The Rehabilitation Officer does all interviewing and vocational counselling; he arranges all enrollments in vocational training courses; where it seems desirable, he interviews employers; he issues to employers and personnel managers recommendations with reference to ex-patients; where necessary he makes direct placements but this he does only in occasional instances.

The Division is not an employment Agency, nor a social-welfare agency in the usual sense



of the term. Rather, as we conceive the duties and the responsibilities of a Rehabilitation Division, the objective should be to utilize presently established, expert, full-time organizations, whose business is education, employment, or resolving social problems, in order to meet adequately the special needs of tuberculosis patients and ex-patients. In the vocational field there should be offered a well-informed professional service comparable to that offered by the physician in the field of medicine.

Doctors are aware that the impact of diagnosing tuberculosis on an unsuspecting patient cannot be lightly dismissed. As realization comes to the layman who has had no former contact with the disease, he immediately associates his disease with such well known terms as "the great white plague," "galloping consumption," "decline," etc., with the consequent sinking of heart that such association brings. Sir William Temple said: "The Physicians' greatest skill perhaps often lies in the infusing of hopes, and inducing some composure and tranquility of mind, before they enter upon the other operations of their art: and this ought to be the first endeavor of the patient too: without which all other medicines may lose their virtue." The physician then is the man who faces the first important problem that starts the tuberculosis patient on the long uphill road to rehabilitation.

As can be realized there is a tremendous adjustment to be made from the active everyday life of the outside world to the quiet inactive sanatorium life necessary in the treatment of tuberculosis. The individual finds himself transported in a matter of a few hours from one extreme of activity to the opposite extreme of inactivity. The tendency in such cases is to develop a real case of frustration. It is at this point that the rehabilitation officer makes his first appearance.

Basing ratings on experience and knowledge of former cases involving the same extent of disease, family history, age, race, etc., the Medical Superintendent gives the rehabilitation officer the following classifications for each new patient at his first medical conference:

**1. Work Tolerance Prognosis** W.T.P. Scale 0-4. This indicates post-sanatorium work capacity.

**2. Deferred from activity in Sanatorium** D1, 2 or 3. (No.'s indicate months).

**3. Restricted Activity** R1, 2, 3 or 4.—In-sanatorium permission for restricted work in hours per day.

**4. National Tuberculosis Association Classification of Disease.**

Immediately on receipt of the above classifications, the Rehabilitation Officer and patient have their first interview in private. A complete social educational and vocational history is taken

and a post-sanatorium goal discussed. Where indicated by lack of employment experience, etc., the possibility of new vocations are investigated by the administration of Vocational Interest, Aptitude, Intelligence, and Adjustment Tests. As the counselling process proceeds, a clear-cut program is decided upon leading to a definite post-sanatorium goal. The purpose of such a discussion is to emphasize to the tuberculosis patient that even though it will be necessary for him to lie in bed for long months with a disabled body he still has a healthy functioning mind—a mind which requires constructive activity to keep it from slipping into habits of laziness and lack of earnestness.

Some might ask—what can be done by a man in bed? Be assured it is wonderful and often amazing what can be accomplished by a man in bed, with just a little guidance and encouragement. All real education, after all, is self education and in adults a minimum of instruction is required.

When medical permission is granted, study is based on the patient's ultimate rehabilitation goal. It may be:

**1. Academic**—Correspondence courses covering the work of Grade 1-12 are available. An institutional teacher is employed to supervise, assist and give tuition where needed.

**2. Technical**—Practically any correspondence course published or its equivalent is obtainable through the Department of Education, Technical Branch. Sewing and dressmaking students are supplied with an electric portable sewing machine.

**3. Commercial**—Through the Technical Branch, Correspondence courses are obtainable in all commercial subjects from local business colleges. Portable typewriters are brought to the patient's bedside.

**4. Occupational Therapy**—The tendency in the past has been to think of rehabilitation and Occupational Therapy as synonymous terms, but occupational therapy is just one factor in the whole process of rehabilitation. The diversional handicraft activities usually referred to as Occupational Therapy have real value and deserve a definite place in the life of the sanatorium patient. However, they must be kept in their proper relationship to the general scheme of rehabilitation and not be allowed to assume more importance than they merit. Such activities may satisfy some patients to a certain extent but they should not be allowed to develop to the point where the patient's full attention is focused on diversional activity. These patients for the most part are young men and women who will be faced with the very real problem of going out into the world to compete in the labor market with normally healthy individuals. To offset any physical disability they may have as a result of sanatorium treatment, it is of the

utmost importance for them to obtain the highest qualification possible. Handicrafts rarely fit one to earn a living.

Comes the final medical conference and the day of discharge after the long months of physical inactivity. It is at this time the Medical Superintendent gives his final discharge classification. This is most important to keep the post-sanatorium occupation in accordance with medical views as to patient's work capacity. The patient is either deferred from work for a number of months or may be permitted to do light work or normal work a number of hours per day.

With the discharge classification, the recorded social, educational and vocational history, the results of the testing program, the in-sanatorium activities, and the all important previously mentioned post-sanatorium goal before him, the Rehabilitation Officer proceeds with his guidance program when medical permission is obtained. In many cases post-sanatorium training in vocational school or business college is arranged. Some patients proceed to University having prepared themselves by obtaining junior or senior matriculation while in the Sanatorium.

In the majority of cases, however, the important objective is return to work. The patient is encouraged to plan a definite job-seeking program. Direct referrals are made and indirect referrals through the Special Placements Branch of the National Employment Office. Patients are encouraged to report unsatisfactory jobs and are given assistance and advice about adjustment problems.

Rehabilitation is by no means a perfected process. Nevertheless enough experience has been gained, enough knowledge gathered, and enough statistics collected, both here and abroad to demonstrate beyond a shadow of doubt that rehabilitation of the tuberculous and indeed for all classes of disabled is perfectly feasible and is to the social and economic advantage of the whole nation. It is generally accepted among tuberculosis workers that for the most part medical treatment for tuberculosis is adequate and that reactivation is

due primarily to the socio-economic factor; i.e. unsuitable working and living conditions subsequent to discharge from Sanatorium. Consider then the appalling waste to a society which for lack of assistance and guidance allows this group of disabled individuals to remain unemployed or to work at employment below their proper level of attainment. The results of such neglect are manifold:

1. Loss of productivity—a nation's wealth depends on production at the highest possible level.

2. Loss in unnecessary expenditure of public welfare funds to maintain individuals and often whole families.

3. Loss to private families who have to maintain an incapacitated relative.

4. Loss due to decreased purchasing power by allowing possible wage earners to remain jobless.

5. Loss of public funds—required to treat reactivated cases of tuberculosis in Sanatorium.

6. And who can estimate the intangible by-products such as loss of self respect, ambition, etc. and the pain and mental anguish of thousands of individuals who are forced into sanatorium with a reactivated case of tuberculosis?

This is the problem with which the Rehabilitation Division is dealing. Five years of experience has confirmed the belief that it is a very necessary part of the treatment of tuberculosis.

"Rehabilitation applies the principle of treatment of the whole man and must take in the needs of the human spirit as well as the physical body." This quotation from Clarence M. Hinks sums up the overall concept of rehabilitation. Throughout the process many people are called on for assistance. The physician, the nurse, the rehabilitation officer, the teacher, the occupational therapist, the placement officer, and the public health nurse—all have a specific function in a healthy scheme of rehabilitation, the key man throughout being the physician. The unified purpose of all is to restore the tuberculous man or woman to the full, happy life of the individual occupying his normal place in society.

## ANAESTHESIOLOGY

Edited by D. G. Revell, M.D., Anaesthetist, Children's Hospital, Winnipeg  
and Fred A. Walton, M.D., Anaesthetist, Winnipeg General Hospital

### Novocaine Deaths

The Clinical Journal (British) of September-October, 1947, describes deaths occurring immediately upon injection of novocaine solutions for local anaesthesia. Novocaine anaesthesia of limbs is not dangerous but there is considerable risk when injection is made about the spine, neck or

throat. Twenty-three of sixty-four deaths studied were in cases injected for tonsillectomy. No explanation of cause of death but cases run a uniform course with loss of consciousness a few minutes after injection, respiratory and cardiac arrest, generalized tonic and/or clonic convulsions, widely dilated, unreactive pupils and death in five to ten minutes. Solutions used were examined

and found in order. Necropsy showed nothing significant, thymus usually normal. Case described, female, 34, had paravertebral injection with etokain (likely a Norwegian trade name for procaine) 0.5 per cent for right nephrectomy. In ten minutes patient became unconscious, ceased breathing, pupils wide, heart sounds inaudible. No response to cardiozol (no detail as to how given) but heart resumed regular action, rate 90, after intracardiac injection one c.c. 0.1 per cent adrenalin. Respirations resumed after one hour artificial aeration, convulsions ending in death 3½ hours after the local injection. Nothing significant at necropsy except small pneumothorax right side and haematoma under parietal pleura. Actual death merely postponed by the intracardiac injection. Non-fatal cases similar but with recovery respiratory and cardiac functions. A patient who previously tolerated large doses with impunity has succumbed to quite minute doses of novocaine. Mechanism not yet understood, but use of novocaine in danger areas should be abandoned in favor of general anaesthesia. (No mention made of use of pentothal sodium to control toxic reaction. Original reports were from Nordisk Medisin).

D. G. R.



### A New Analgesic AN-148 Preliminary Report

Gentling and Lundy in Proceedings, Mayo Clinic, Vol. 22, Number 13, report trials of 1-dimethyl-3, 3diphenyl-2-methyl-4- hexanone or AN-148 as a substitute for morphine in 106 cases

for the control of pain due to a variety of diseases. Pain due to gangrene from vascular occlusion, pain following Smithwick operations and the pain produced by chronic pancreatitis with stone were all difficult to control with either AN-148 or large doses of opiates or demerol. Two cases of severe headache, but not a case of migraine, were controlled. To supplement a failing spinal during operation it was satisfactory. When used as pre-medication for general anaesthesia it had the same or a better effect in reducing the amount of general anaesthetic agent required during operation. Given before spinal anaesthesia or local infiltration it adequately sedated even nervous patients.

AN-148 may be given by mouth, subcutaneously, intramuscularly, or intravenously without local reaction. Preferably it is given by fractional intravenous technique as the observation of the immediate effect may be used to determine the proper dosage for that individual. The average dose is 5 mg. which is estimated to be equivalent to morphine 15 mg. by the same route. It is tolerated well by ambulatory patients. About 30% experience some dizziness but no nausea or vomiting. There is no observed interference with judgment or equilibrium nor is there any central depression of respiration. There appears to be no tendency to addiction and it is tolerated well by those sensitive to opium alkaloids. No incompatibilities have been discovered as yet. AN-148 is expected to become a valuable substitute for morphine. Investigations continuing.

(This drug is not to be confused with Dolophine (Lilly) which is 4-4Diphenyl-6-Dimethylamino-Heptanone-3. Ed.).

D. G. R.

## Hospital Clinical Reports

Reported by J. M. Whiteford, M.D.

### Agranulocytosis Due to Dilantin Sodium

Dr. C. B. Schoemperlen

Case: An Indian half-breed boy of 16, first seen in February, 1947, with a history of mild epileptiform seizures without loss of consciousness which had been occurring for an unknown duration. There was no other available history, apart from old tuberculous scars on his neck and several other scars on his body, presumably the result of old burns. Physical examination, including neurological examination, was negative. His mentality was found to be low, about equal to age 6.

X-ray of his skull showed multiple calcified areas on the left side—in the left occipital, left posterior parietal, left frontal and near the sella. These were interpreted by the X-ray department as probably being old tuberculomata. Electro-

encephalogram showed evidence of widespread cerebral pathology. Urinalysis was negative, blood Wassermann negative and sedimentation rate 11 mms. in one hour. X-ray of the chest showed calcification in the hilar areas, suggesting healed tuberculosis.

While in hospital he had some bizarre atypical epileptic attacks, initiated by a loud cry and followed by thrashing of his arms, without loss of consciousness but with amnesia for the episode. These attacks were controlled by dilantin grs. 1½ t.i.d., and the patient was discharged the middle of March with a supply and instructions to take 1 tablet (grs. 1½) three times a day.

He was not seen again until August, when he was admitted with incipient status epilepticus. He had apparently run out of pills in April and failed to replenish his supply. He was again put on



dilantin grs.  $1\frac{1}{2}$  t.i.d. and discharged on August 25th, with a new supply of dilatin.

His next admission was on September 24th. On examination he was drowsy, semi-stuporous, had a temperature of 103 and a small area of gangrene in his right lower lip, extending into the labial mucosa. In addition there was marked gingivitis and pyorrhoea. A smear from the lesion on his lip showed Vincent's organisms, Gram positive diplococci and bacilli. White blood count was 2900 with 7% young polymorphs, 1% old and 4% toxic metamyelocytes. Sternal marrow aspiration revealed marked degenerative myeloid cells with a maturation arrest at the metamyelocyte level.

He was put on penicillin, 40,000 units o.h.3, and was given a small transfusion of 200 c.c.'s of blood. In two days his temperature was normal and the patient rapidly improved. Penicillin was discontinued on October 3rd, after  $2\frac{1}{4}$  million units had been administered. His temperature has remained normal since.

A series of white blood counts and differentials are tabulated to show progress and improvement in the blood picture under penicillin therapy.

	Sept. 25 2900	Sept. 26 3550	Sept. 29 5600	Oct. 2 5400	Oct. 5 8200
Total W.B.C.					
% Polymorphs					
Young	7	10	15	14	14
Mature	1	3	20	30	41
Absolute Values as					
Polymorphs	230/c.m.	460/c.m.	1900/c.m.	2300/c.m.	4500/c.m.

Sternal marrow on October 15th showed a normal differential and absence of any degenerative changes in the myeloid cells.

Dilantin sodium (sodium diphenylhydantoinate) has been used to control convulsive states for a number of years. To date it has proved the most effective drug in the control of seizures and has the added advantage of not being a hypnotic. The usual dosage is grs.  $1\frac{1}{2}$  t.i.d., which may be increased when necessary to a daily total of 9 grains.

Undesirable side effects noted to date include (1) muscle inco-ordination giving rise to diplopia, nystagmus, etc., (2) pruritis, (3) rash, (4) weight loss, (5) hyperplasia of gums. (6) Differential blood counts on patients receiving dilantin have in the past shown eosinophilia and a tendency to low white cell counts, but no evidence of agranulocytosis has as yet been reported.

Other drugs which may produce agranulocytosis include amidopyrine, thiouracil and the sulfonamides.

Dr. Childe reported X-ray studies of this patient, showing healed tuberculous lesions in the chest and multiple crenated calcified lesions within the skull which were characteristic of healed tuberculomata.

Dr. Murray Campbell: Could the current symptoms be considered a result of new tuberculomas developing in the brain?

Dr. Childe: Epilepsy following intracranial tuberculomas is usually considered to result from shrinkage of old lesions, so that new lesions need not be postulated to explain present symptoms.

Electroencephalographic studies were reported as indicating either (1) cryptogenic epilepsy or (2) widespread cerebral pathology.



## Obituary

### Dr. Frederick James Hart

Dr. Frederick James Hart, aged 76, died on November 2 at his residence, 21 Westgate, Winnipeg, after a six weeks' illness. Born in Dalston, Ontario, he was educated in Dalston public schools and Barrie Collegiate, and graduated M.D.C.M. from Trinity College, Toronto, in 1896. Two years spent in post-graduate study in London brought him the degrees M.R.C.S. and L.R.C.P. After a few weeks practice in Barrie and Sault Ste. Marie, Mich., he came to Winnipeg where he established an extensive practice. In 1920 he became Lecturer in Clinical medicine, in 1923 Associate Professor, and in 1933 he retired from teaching.

He was president of the Winnipeg Medical Society in 1932-33 and was awarded life membership in the Society in May, 1944. He is survived by his widow.



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## EDITORIAL

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J. C. Hossack, M.D., C.M. (Man.), Editor

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We are approaching that season when each year for a few hours or less men's hearts are sweetened and they find it easy to be kind. For the story of the Nativity we are indebted to a doctor, a man about whom we know little save that he was kindly and gentle and was to those who knew him "the beloved physician," a title than which none higher can be won by any doctor. It is fitting that a doctor should write about peace and good will for they are so necessary to the health of individual men just as they are essential to the welfare of mankind as a whole.

Perhaps doctors as a group are no better than any other law-abiding body of citizens, but somehow I do not think this is so. To spend one's years in mending the maimed, in healing the sick, in comforting the distressed must surely sweeten and refine all but the most callous charlatan. It is difficult to conceive of anyone regarding the practice of medicine as merely a business. It is not a business to coax an unaccustomed smile to linger on a wan cheek, to smooth the furrows ploughed by care, to lead hope by the hand to a place where she has long been a stranger. If

there is music about that it is not the jingling of shekels or the sounds that please the ears of Gehazi; the altruistic side of medicine is the most important one because it is responsible for the longer, healthier lives now enjoyed by increasing numbers. This success is due to the universal co-operation of doctors everywhere. With singleness of purpose they bend their efforts to destroy disease and bring physical peace. Surely here is a hint and an inspiration to legislators and statesmen. If they could work in the spirit of medicine one world would not long remain an intangible vision.

Elsewhere you will find a communication from Miss Margaret Chown. It fits the season showing as it does how great men and women setting at naught barriers of space and language, gathered to ask and to tell how children might be made strong in body and in mind so that, thus fortified, they might grow to build a safer and better world for themselves and their descendants. Those who strive so earnestly to make life long deserve that others strive to make it safe.

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### Letter to the Editor

Dear Doctor Hossack:

In the editorial page of The Manitoba Medical Review of October, 1947, "One of Them" ends his letter to the Editor by saying, "There are many Country Doctors hard hit and we would like to hear from them."

I am Another "One of Them" but fortunately I moved out of the district early enough to avoid the full force of the blow. However, my experience with the Health Unit was close and long enough that I agree with every word of the complaining writer. In fact I have had this matter on my mind for a long time but never dared say anything because those responsible for bringing up the Health Unit tried to convince me that I was the only practitioner who did not welcome such a set-up. To their say the Health Unit would be a real boon in all respects and I was ridiculed for opposing it.

Now that "One of Them" has started the ball rolling I can also say that it is not a boon to the local man but a serious handicap to the Country Doctor.

Let alone the hardships, country practice is not so remunerative by itself that we should be

deprived of some good sources of income as those mentioned by "One of Them."

Some misgivings of the Public Health Nurse should also be pointed out. Striving to prove her usefulness to the taxpayer it is not uncommon for her to treat the wealthy patient herself after seeking your advice on the telephone and then inform the patient on her own accord that the Doctor deems a visit as unnecessary.

On the other hand this same Nurse, so imbued with ideas of Community Welfare, will think nothing of sending you miles away on bad roads to check over indigents whose ailments are common colds or uncomplicated scabies, when her advice alone would have been sufficient.

Of course, I am not against the principle of Health Units; in fact, I approve of it in certain localities where their work does not conflict with the practitioner's. But if the Government really has at heart the welfare of the Community, instead of plain vote-baiting, and intends to provide adequate medical care in all rural areas, it should discontinue competing with those willing to enter the field of country practice.

When country practice is made attractive enough, there will be no need for compulsion.

Another "One of Them."

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## The Thrill of Being a Pediatrician's Daughter

Margaret Chown, B.A.

Last February, my father, Doctor Gordon Chown, received a notice informing him of the International Congress of Pediatrics to be held at the Waldorf-Astoria in New York City from July 14 to 17. Without much deliberation, he decided to attend, and he very kindly invited his wife and daughter to accompany him. Five months later, on July 14, we found ourselves in the magnificent metropolis, New York City.

What a thrilling and exhilarating experience it was! To be one of two thousand delegates, representing sixty different nations, gathered together from every corner of the world, to discuss and exchange ideas as to how they could promote the health and welfare of the children of the universe, was a privilege I shall never forget.

In such a heterogeneous group, with a continuous babble of foreign tongues ringing in your ears, it was necessary to devise some method whereby it would be possible to alleviate the language difficulty. Several pediatricians who spoke two languages, acted in the capacity of interpreters, and would help the Cuban doctor or the Czechoslovakian doctor find his bearings. At the meetings, transmitters were made available to the delegates who, consequently, were able to tune in any one of three translators who were reading the paper of the speaker, in either French, Spanish, or Dutch. This mechanical device, which was borrowed from the United Nations for the occasion, certainly made a singular contribution to the success of the Congress.

The formal opening of the Congress was a very dignified and ceremonious affair. Dr. Henry F. Helmholz, President of the Fifth International Congress, welcomed the gathering, and greetings were extended from Commissioner Edward M. Bernecker, representing the Mayor of New York City, the Governor of the State of New York, and the President of the United States. General Frederick H. Osborn, Deputy Representative of the Atomic Energy Commission, presented an interesting commentary on the latest results and conclusions of their intense scientific research.

It was great fun and exceedingly fascinating for my mother and myself to spend our idle moments observing the innumerable pediatricians and their wives. The Indian princesses in their beautifully colored saris, the Cuban women dressed exotically with frills and flowers, the jolly Englishmen in their light tweeds, the Bermudans in their white palm beach suits, and our cordial neighbors,

the Americans, clothed so practically in cool seersucker suits.

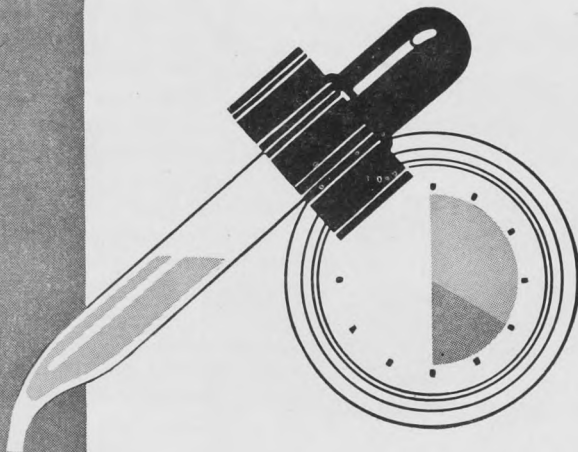
There was one delegate who will always stand out very distinctly in my memory. He was the oldest baby specialist of the entire group, and he and his charming wife had flown from Holland for the occasion. Unfortunately, he was a victim of arthritis, but this did not curb his undaunted spirit, and happy countenance. He spent his time in a wheel chair, and either his wife, or one of his younger Dutch colleagues was at his side continually. He was a very distinguished looking gentleman, and to my mind, he resembled that eminent figure of medical history, Louis Pasteur.

Although the doctors were busy at their meetings, they found time to mix business with pleasure, and our genial hosts arranged an exciting programme of entertainment for their visitors. The first afternoon all the delegates assembled in the Grand Ball Room of the Waldorf, where they were introduced to the various dignitaries, and had a happy time together, mingling around, chatting and exchanging points of view about the latest scientific, nutritional or psychological discovery in the unique study of Pediatrics.

On Wednesday we were taken on a Steamer Excursion up the Hudson River. A picnic supper was served, an orchestra filled the air with music, catering to all nationalities, a bar was provided to quench our thirst, and the scenery was a treat to behold. It was a wonderful day.

To wind up the festivities, a Banquet was held in the Grand Ball Room, which was truly the most thrilling part of the entire Congress. It was a very colorful spectacle, and the atmosphere was one of sincere internationalism, good will, and prosperity. After a wonderful dinner with all the trimmings, some of the executive officials spoke a few words in various languages. One of the speakers was a young doctor from Cuba who presented to Dr. Helmholz a Cuban Emblem as a token of appreciation for the wonderful time he and his associates had had during their stay in New York. His speech, given in very broken English, was so sincere and genuine that it resulted in loud applause and cheers from the whole assembly.

After a week of gaiety, fascination, and excitement, we left behind us New York and an International gathering of keen Pediatricians, many of whom had travelled thousands of miles, by land, sea, and air to attend the Fifth International Congress of Pediatrics. We brought with us many wonderful memories, which will always maintain an important chapter in our Book of Life's Experiences.



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TOMORROW'S MEDICINE FROM TODAY'S RESEARCH

## Refugee Physicians

Dr. A. D. Kelly

Assistant Secretary of the Canadian Medical Association

The question of the admission to Canada of refugee physicians has recently become a matter of some public interest. Various opinions on this matter have been attributed to the Canadian Medical Association, and it appears opportune to examine the problem and to state my own views based on the appraisal of the opinion of Canadian doctors.

In any discussion of this sort, it is important that we be clear in our terms, and I would define a refugee doctor as a physician qualified in his own country who through the dislocation of war or political or racial persecution cannot, or does not desire to return to his native land to practice medicine. There are undoubtedly among the Displaced Persons of Europe a number of physicians, mainly from the nations of Central and Eastern Europe, who qualify under this definition. You will note that I do not include in the classification of refugee physicians those doctors from the United Kingdom, the British Commonwealth, the United States or those democracies in Western Europe which opposed Nazi and Fascist aggression in the recent war.

Those Canadians who favour the unrestricted immigration of refugee physicians justify their stand on two main premises: a humanitarian duty, and a means of satisfying a need for more physicians which is said to exist in Canada. In most presentations of the subject which I have read or listened to, these motives are inseparably mixed. This is quite natural, as in most of our dealings, either as individuals, as organizations, or as nations, our benevolent impulses are conditioned by a measure of self-interest.

It will scarcely be denied that the medical profession by tradition and by its everyday work is sufficiently humanitarian in its outlook to comprehend the plight of Displaced Persons generally, and of our professional colleagues among them in particular. Moreover, our viewpoint has of late years been enlarged to encompass world conditions as they exist and to seek to assist in their amelioration. The recent service of several thousand Canadian doctors in the Armed Forces has given them the opportunity to see at first hand the medical services of many nations and to compare them with similar activities in Canada. More recently, Canada and the Canadian Medical Association has taken a leading part in the formation of two complementary bodies, the World Health Organization and the World Medical Association, which have as their primary objectives "the attainment by all peoples of the highest possible level of health." My senior colleague,

Dr. T. C. Routley, General Secretary of the Canadian Medical Association, has for over a year been actively engaged in the organization of these two great international health groups, and this work has given him a unique opportunity to learn much about the world's medical needs. He has been convinced that the shortage of doctors in large populous areas of the world is desperate, and that the need for additional medical practitioners is imperative.

Here are some facts reported by Dr. Routley after consultation with the medical leaders of the countries concerned. Czechoslovakia, which had 12,000 doctors in 1939, lost irretrievably 60% of them during the years of the German occupation; China, with a population of 400,000,000, has fewer than 12,000 doctors, only one-third of whom are adequately trained; Liberia, with a population of 2,600,000, has one doctor. Ethiopia, with a population of 12,000,000, found itself after the war without a single doctor or trained nurse in the country. We have recently learned that 16 physicians trained in European schools have settled in Ethiopia to practice their profession.

It is possible to point to many other countries where the need is only slightly less, but by comparison, the position in Canada is most favourable. As a nation, we have one qualified physician for every thousand of our population.

It must therefore be a very narrow humanitarian viewpoint which will suggest that refugee physicians should be brought to Canada when their services are so urgently required elsewhere.

The Parliament of Canada was the first legislative body in the world to ratify the Charter of the World Health Organization. In so doing, our country was pledged to support the instrument of the United Nations which is attempting to improve the health of all the peoples. The health conditions in Poland and China and Greece and Egypt are important to Canadians as never before, since an aircraft carrying people from many nations may arrive at Edmonton or Montreal or Vancouver within less than twenty-four hours from its departure. Human beings are the commonest carriers of human diseases, and elaborate precautions must be set up to prevent the introduction of maladies from other lands. It is therefore elementary public health practice to protect the Canadian people by raising the standards of health throughout the world.

It is incomprehensible to me that the Government of Canada will so disregard its international obligations that refugee physicians will be admitted to Canada, when all indications point to



the wisdom of settling them in the needy areas of the globe.

The other half of the question is Canada's need of doctors. I have stated that Canada is one of the favoured nations in this respect, and I propose to present some figures which bear upon this assertion.

Just over a year ago, there was published by the Department of National Health and Welfare a most interesting booklet entitled, "Survey of Physicians in Canada, July, 1946." The information concerning the present supply of physicians and their location was an up-to-date continuation of the registry established and maintained by the Canadian Medical Procurement and Assignment Board, and predictions of future supply and demand were obtained mainly from the Report of the National Health Survey, another war-time activity of the C.M.P.A.B. As of July 1, 1946, there were reported to be 11,901 active civilian physicians in Canada, serving a population estimated by the Dominion Bureau of Statistics in 1945 to be 12,102,000, giving a ratio of 1 physician to each 1,017 residents in Canada. At the time, there were 1,417 medical officers serving in the Armed Forces and, assuming that they have now resumed their civilian status, it is possible to amend these figures to fit present conditions in the Autumn of 1947 as follows:

Active civilian physicians, July, 1946	11,901
Demobilized medical officers	1,417
1947 graduates in medicine	531
	<hr/> 13,849
From which must be deducted:	
Estimated number of M.O. with armed forces	130
Deaths and retirements 1946-47 (estimated)	300
	<hr/> 430

For an estimated total of civilian physicians at present active 13,419  
Presuming the population to have increased to 12,300,000, the estimated present physician-population ratio is 1:916.

Is this ratio adequate to insure a high standard of medical care to the people of Canada? It is not possible to give a categorical answer to the question, as no one to my knowledge has been bold enough to state the ideal or optimum ratio of physicians to population, and to support his assertion with adequate reasons. Just as it is impossible to specify the appropriate number of journalists or farmers or cabinet ministers, because the answer must be qualified by a multitude of circumstances and conditions, so we must not indulge in generalizations in respect to the adequacy or inadequacy of our medical personnel.

However, if we recognize the limitations of the physician-population ratio as a measuring stick for the adequacy of medical care, it is pos-

sible to gain some information on the position which Canada occupies in relation to other countries by comparing the respective ratios.

Figures quoted in the House of Commons in 1943 show the following countries with more favourable ratio: U.S.A. 1 - 796; Sweden 1 - 723; Union of South Africa 1 - 728. New Zealand and the United Kingdom with ratios of 1 - 923 and 1 - 937 are practically on even terms with Canada, while the remainder of the major powers of the western world show ratios which vary from 1,087 in the case of the Argentine to 1 - 1621 in the case of U.S.S.R. (in Europe), and 1 - 1651 in the case of Eire. The only other member of the British Commonwealth of Nations which can be closely compared with Canada on the basis of large area and small population is Australia, where the physician-population ratio is 1 - 1,139, a much less favourable figure than Canada's 1 - 916.

It appears therefore that Canada as a whole is more adequately supplied with physicians than most countries and, speaking broadly, requires no major additions to meet its present needs.

However, the practice of medicine is not undertaken as a national effort but as a very personal relationship between an individual doctor and his patient. This implies a reasonable distribution of physicians in relation to the people in need of their services. An examination of the distribution of physicians by provinces, shows considerable disparity to exist. It is not possible as yet to indicate by provinces the effect of further demobilization or the annual output of Canadian medical schools, so the following figures are taken from the Survey of Physicians in Canada, July, 1946:

	Physicians	Population Per Physician
Prince Edward Island	74	1,243
Nova Scotia	492	1,262
New Brunswick	293	1,597
Quebec	3,334	1,063
Ontario	4,752	843
Manitoba	706	1,042
Saskatchewan	562	1,504
Alberta	676	1,222
British Columbia	1,012	938

Before any reasonable judgment of the adequacy or inadequacy of the supply and distribution of physicians in any specified area can be made, an intimate knowledge of local conditions is required. The needs of any area depend not only on population but on many attributes such as economic status, attitude toward medical care, density of population, topography, climatology, accessibility of transportation, the availability of facilities such as hospitals, and the location of special facilities for medical care.

It is quite evident from a more detailed study of the distribution of physicians in Canada that urban communities are more adequately supplied

with physicians than are rural areas. The urbanization of the medical profession is not an isolated phenomenon, but runs parallel with the growth of cities and the shift in population which has been evident in Canada for over forty years. It must be remembered also that not all of the physicians in urban centres are engaged in the direct medical care of the persons within their respective communities. In the larger cities, many of the physicians are employed in medical schools and hospitals as teachers or post-graduate students, in research, industrial medicine, medical administration and other capacities not directly connected with practice. Furthermore, there are in urban areas a considerable number of specialists and consultants who serve a much wider area than the municipality in which they live. It was shown in the National Health Survey (1943) that "concentration of physicians in urban areas is in large measure more apparent than real insofar as community medical care by general practitioners is concerned."

Notwithstanding these observations, there are areas in Canada where sparse population, difficult communication and transportation and other factors, combine to make them unattractive to physicians, and where medical services are scanty or lacking. We recognize that this situation must be corrected and organized medicine is making every effort through placement services to encourage the location of doctors where no medical service now exists.

Poor economic conditions in these medically marginal areas are by no means the only deterring factors to the settlement of physicians. Equally important are the lack of these hospital, diagnostic and consultative services upon which the modern practice of medicine is built, as well as the absence of the amenities in the field of education and culture which the doctor desires for his family.

I would like to make it clear that the importation of refugee physicians will not correct this lack of medical manpower in certain rural communities. A limited experience in Canada, and a much more extensive experience in the United States, has shown that foreign graduates very rarely proceed to the areas of greatest need, but almost invariably settle in the large metropolitan centres. It is wishful thinking to assume that the adoption of a policy of wholesale immigration would do anything but accentuate the disparity which has been noted.

The future supply of physicians in Canada will in large measure depend on the output of Canadian medical schools. Nine Canadian Universities now teach the full medical course, and two additional schools will within the next few years be graduating students in Medicine. In all of these schools registration in medicine is the highest ever, and a

very large proportion of the undergraduates are veterans of World War II.

For the period 1920 - 1939, the average annual number of graduates was 519;

For the period 1940 - 1945 (the war years), the average output was 630;

For the period 1946 - 1952 it is estimated that the graduates will number 627 annually.

In the next five years, 1947 - 51, it is anticipated that 3,277 new graduates in medicine will be produced. Past experience has shown that ten per cent of these will leave Canada to follow a career elsewhere, and an additional five per cent will be foreign-born students who return to the country of their origin. These factors will reduce the available doctors by 491. During the five-year period, death and retirement of physicians now active will account for a loss of 1,150 doctors. Deducting these latter two figures from the estimated output of the schools, we should have 1,586 more doctors in Canada in 1951 than we have today.

The Dominion Bureau of Statistics estimates that the population of Canada may be from 12,722,000 to 12,943,000 in 1951. Adding present medical manpower to the anticipated net gain, and taking the higher population forecast, the physician-population ratio in 1951 should be of the order of 1 - 868, the most favourable figure in Canada's history.

Future trends in the provision of medical services include the growth of prepayment plans on either a voluntary or a compulsory basis, and the wide extension of these plans would undoubtedly increase the demands for the services of physicians. To offset this possible future requirement, we have two additional medical schools now preparing to teach the full course and a third University which is seriously considering the establishment of a Faculty of Medicine.

In this discussion, I have attempted to present a medical viewpoint on the question of the advisability and the necessity of permitting unrestricted immigration of refugee physicians to Canada. The other important consideration, which would become operative only if these foreign medical graduates were actually in Canada, relates to their ability to meet the exacting tests of professional knowledge and skill which have been set up to protect the Canadian people from practitioners of inferior qualifications. The possession of a degree in medicine is not the final criterion for fitness to practice, and in every province in Canada there is established by an Act of the Legislature a licensing body usually called a College of Physicians and Surgeons whose duty it is to demand of applicants for registration proof of preliminary education, evidence of undergraduate training in medicine, equivalent to the course taught in Canadian schools, and usually evidence

of having passed the examinations of the Medical Council of Canada. Additional requirements include evidence of good character and ethical behaviour, and in certain provinces the applicant for registration must either be a British subject or a Canadian citizen. It is not in the public interest that any relaxation of the high standards of medical licensure should be permitted either in the case of foreign-trained physicians or for the graduates of our own schools.

Medical immigration to Canada is a continuous process. I answer every week at least four letters of enquiry from doctors in the United Kingdom desiring information on the possibilities of practice in Canada. They are given the facts on medical

conditions in this country as we know them, as well as full information on licensing requirements. We do not paint a picture of urgent need or unparalleled opportunity, but they are told that there is always room for a well-qualified man who is prepared to enter rural practice. Many of these enquirers are already in Canada refreshing their knowledge by a hospital internship and learning the unfamiliar features of our administration of health and medical services, and qualifying themselves for the examinations of the Medical Council of Canada. It is my opinion that the needs of this country for doctors will best be served by depending on the product of our own medical schools, augmented by selective immigration of this type.

### Committee of Six Conclusions

**Draft of conclusions reached by negotiation of representatives from the Manitoba Medical Association, Board of Governors, University of Manitoba, including instructional staff of the Faculty of Medicine, and the Cabinet of the Government of Manitoba.**

**First.** It was agreed by all:

1. That while there are now more doctors in Manitoba than ever before, a shortage still exists for the need of the people established in rural areas and that many places have no medical attention. This shortage is not only evident in Manitoba but is general throughout every province in Canada and in many other states and countries of the world. It was agreed, further, that any contract which a student entering medicine now may sign, under which he undertakes upon graduation five years hence to practise in Manitoba for three years, would not bring any immediate relief to those districts which are now lacking medical care;

2. That a likely source of immediate supply should, naturally, come at the present time from a number of doctors who have served in the Armed Forces during the war and who, having availed themselves of post-graduate training offered through the Department of Veterans Affairs, are now about ready to resume civilian practice;

3. That the problem of providing adequate medical care for rural Manitoba can best be solved by effective co-operation on the part of the University, the Manitoba Medical Association and the Government of Manitoba. The immediate problem is to provide doctors in those areas which require their services now; the long range problem is to procure for the future an adequate continuing supply of medical personnel for all parts of the province.

**Second:** As a practical approach to this problem, the Negotiating Committee has asked the

Department of Health and Public Welfare to prepare a survey showing every actual location requiring doctors, with information as to the town or village of residence, the facilities for medical practice such as a hospital or workshop, the amount of population to be served and its racial extraction, roads, schools, and salary or other guarantees or emoluments to induce a doctor to enter a district. When a doctor comes to look for a position or an area in which to settle he wants to know all the facts which have been enumerated above so that he can then decide whether or not he should enter the district for practice.

It is obvious that a survey of these locations will indicate that they are not equally desirable and it may be difficult to obtain medical service for the less attractive locations. In such cases, it will be the duty of the Governments, both Municipal and Provincial, to assist in improving these locations in whatever respects they are lacking so as to attract a good type of medical practitioner.

Having classified the districts in this way, the Manitoba Medical Association, the Faculty of Medicine and the Department of Health and Public Welfare will set up committees which will act jointly to assist in locating doctors for these classified areas.

**Third:** The Faculty of Medicine will endeavor to emphasize general practice and rural practice in the undergraduate years of its students as to effectively bring before the student the opportunities that are available and the value to a doctor of rural practice during the early part of his professional life. It was suggested that in the academic years some students should be sent into rural districts to assist established physicians in their practice, for a variable time—this to be part of the undergraduate training. These rural preceptorships will be under the guidance of established and recognized rural general prac-



tioners who would inspire the students in their formative years.

**Fourth:** The Government and organized medicine should co-operate in attracting doctors now in Manitoba, especially those completing post-graduate work with the D.V.A., to take up the positions indicated as available by the Department's survey. An attempt should also be made on a wider scale throughout Canada to acquaint prospective doctors of whatever positions remain unfilled. If, after these efforts, there are still some positions vacant, then an attempt should be made to induce physicians in Great Britain to come here to take up these locations.

Finally, where it is impossible by any of the means mentioned above to obtain medical care for a district, then European doctors may be brought in, provided their credentials and academic attainments are satisfactory for registration with the College of Physicians and Surgeons of Manitoba. The medical profession indicated that it took no political issue with the immigration policy of Canada and that, when doctors come from Europe as free agents, it would welcome them as brethren, provided they fulfil the licensing requirements.

The Negotiating Committee thinks that these recommendations, if they can be satisfactorily carried out, offer the promise of securing more effectively, than by the means of the proposed three-year contract, adequate medical personnel for Manitoba and particularly for rural Manitoba. It is proposed, therefore, that these recommendations be given a trial for a period of three years. During this trial period no applicant for admission to the Faculty of Medicine, University of Manitoba, shall be asked to sign as part of his application form an undertaking to execute a contract to practise medicine in Manitoba for three years after graduation. The existing applications for the 1947-48 class shall stand as they are now, but the applicant shall not, during this trial period, be asked to sign the said contract to practise in Manitoba for three years after graduation. At the end of the trial period, this Committee of Six, comprising the Government of Manitoba, the Board of Governors of the University of Manitoba, including representation from the Instructional Staff, and the Manitoba Medical Association, will meet and consider the whole question again and decide upon any measures that may then be necessary to meet the existing situation in Manitoba.

## SOCIAL NEWS

Reported by K. Borthwick-Leslie, M.D.

The marriage of Dr. Rodney Chadwick to Patricia Currie, R.N., will take place at 7 p.m., December 6th, 1947, at St. Stephen's Broadway Church. The young couple will leave shortly to take up residence in China.

The marriage of Miss Carol Norman, R.N., to Homer Eshoo, B.A., M.D., Anaesthetist at St. Joseph's Hospital, will take place Saturday, December 6th, 1947, at St. Stephen's Broadway Church. They are motoring to California for a month.

Dr. E. H. Brotman was married recently in Montreal, Quebec, to Miss P. Swartz. After their wedding trip to Chicago, they will establish residence and practise in Winnipeg.

Congratulations to Dr. J. S. Downey on his appointment as Medical Superintendent of the Municipal Hospitals. He replaces Dr. D. McIntyre, who is retiring after many years of excellent service. Good luck to Jo in his new job, and to Dr. McIntyre in his new home.

Dr. and Mrs. Roy Martin, of Neepawa, Manitoba, our genial past-president of the Manitoba Medical Association, have moved to Winnipeg and established residence and office on Stafford and McMillan Avenues. They will be pleased to receive all friends.

Dr. Gerard Allison has recently returned from Eastern Canada, where, in Toronto, he took a short Post Graduate course in "Catheterization of the Heart." Later he attended the meeting in Ottawa of the Royal College of Physicians and Surgeons. A number of our members, Drs. Gordon Fahrni, Sr. and Jr., Burns, MacCharles, Clarke, Swartz, Corrigan, Cameron, Bell, Gemmell and Jack Kilgour attended—(I may have missed some). Dr. Kilgour is being complimented on delivery of an excellent paper on Chronic Hepatitis. The boys report seeing Bill McElmoyle, Victoria, B.C., and Martin Spooner, Toronto, at the meeting, both looking very well and happy. The new President of the R.C.P. and S. is Dr. Gillespie, Edmonton, who succeeds Dr. R. Farquharson, Professor of Medicine, Toronto, Ontario.

Your gossip monger also has moved to her new home, 944 Sommerville Avenue, Fort Garry. Sorry—David and I will be "at home" over the festive season, but believe me, awfully broke, bring your own!! By the way, Athol, the next time we meet in the lunch bar, let's toss for the checks, don't just push yours under my plate.

Sincere sympathy to the friends and relatives of Dr. Harry Harris Hutchinson, aged 73 years, who died suddenly November 28th at his residence, Spence Street. He is survived by three sons, Dr. H. H. Hutchinson, Jr., Neepawa, Manitoba; Dr. Herbert, London, England, and W. T. Hutchinson, Edmonton, Alberta.

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lent bronchitis (human)

Photograph: H. S. Hayden, F.R.P.S.



# "NUSILYN"

During the exudative stage of acute respiratory infections, administration of Nusilyn tends to dilate bronchi and liquefy bronchial secretions and exudates. In this way expectoration is facilitated and the respiratory tract is cleared of obstructing secretions. Hacking and unproductive cough is avoided, patients are permitted rest and comfort, and healing is promoted.

## Each Fluid Ounce Contains:

Theolamine (Aminophylline "Frosst")...	5 gr.
Potassium citrate.....	40 gr.
Tincture of Ipecac.....	20 min.
Chloroform.....	8/10 min.
Simple syrup, flavoured.....	q. s.

## "NUSILYN" with CODEINE

Nusilyn with Codeine (1 gr. per fluid ounce) is available for those cases in which part of the cough may be due to the pre-exudative stage.

### DOSAGE

ADULTS: 1 to 2 teaspoonfuls.

CHILDREN: 1 to 2 years:  $\frac{1}{4}$  teaspoonful  
(30 drops); 2 to 4 years:  $\frac{1}{3}$  teaspoonful  
(40 drops) to  $\frac{1}{2}$  teaspoonful (60 drops).

Well diluted with water and taken every four hours.

### MODES OF ISSUE

Available in 4 fl. oz., 16 fl. oz., and  $\frac{1}{2}$  Imp. gal. bottles.

Charles E. Frosst & Co.  
MONTREAL CANADA



## ASSOCIATION PAGE

Reported by M. T. Macfarland, M.D.

### Defence Medical Association of Canada

The annual dinner of the Manitoba Branch of the Defence Medical Association was held at Fort Osborne Barracks on Friday, Oct. 24th. The Sunset Hour was prolonged and a business session preceded the dinner. Officers for 1948 were elected as follows:

President .....	Dr. F. A. Mathewson
Vice-President .....	Dr. W. M. Musgrove
Secretary .....	Dr. P. K. Tisdale
Treasurer .....	Dr. Gordon P. Fahrni

#### General Committee

Navy .....	Dr. S. O. Dowling
Army .....	Dr. W. J. O'Neill
R.C.A.F. ....	Dr. D. M. Bruser

Resolutions considered by the meeting dealt with recruitments and training of the Reserve Force, registration of the medical profession, and the necessity for research in connection with Atomic or Bacterial warfare procedures. It was pointed out that vacancies still exist in the R.C.A.M.C. (R.F.). Following the dinner, Brig. R. O. G. Morton was introduced to the gathering by the retiring president, Dr. T. E. Holland. The annual meeting of the dominion organization was held in the Chateau Laurier, Ottawa, on Nov. 7th and 8th.

### Clinical Luncheon, Children's Hospital

In addition to the Clinical Luncheons outlined in the October issue of the Review, that of the Children's Hospital will be held on the **first Wednesday of each month**. The first of these luncheons was on Nov. 5th. Lunch was followed by the presentation of three cases by Doctors Harry Medovy and I. H. Beckman, O. J. Day and J. S. McInnes, and S. Israels and C. W. Clark. If the luncheon served, and the program presented is a sample of the activity planned for the year, a large turnout and successful meetings are assured.

### Brandon and District Medical Society

The final meeting of the Brandon and District Medical Society met at the Mental Institution on Nov. 12th, and was well attended. Dinner was served under the supervision of the Superintendent of Nurses and Dietitian, and post-prandial remarks were made by the President, Dr. A. L. Paine, Dr. H. D. Kitchen, and Dr. M. T. Macfarland. A hearty vote of thanks was extended by Dr. W. S. Peters, and was responded to by Dr. S. Schultz. Following dinner the ladies were entertained at bridge while the scientific program was in session. Cases of "Endocrine Dysfunction" were presented by Drs.

Myers, Findlay and Peters, while a paper on the same subject was read by Dr. H. D. Kitchen of Winnipeg. A number of illustrative slides were presented. A brief business session followed the scientific program. Later, Dr. and Mrs. Peters extended the hospitality of their home to the visiting members.

### Committee of Six

The Committee of Six representing the Cabinet of the Provincial Government, the Board of Governors of the University of Manitoba, including the Medical Faculty, and the Manitoba Medical Association, was reconvened at a luncheon meeting in the Medical Arts Club Rooms on Wednesday, Nov. 12th. Those present included: Hon. J. C. Dryden, Hon. Ivan Schultz, Mr. Victor Sifton, Drs. F. W. Jackson, A. Hollenberg, A. T. Mathers, J. A. Hillsman and P. H. T. Thorlakson. The object of the meeting was to implement the recommendations of the conclusions reached by the Committee of Six in earlier sessions, and printed elsewhere in this issue, more especially to consider ways and means of attracting additional practitioners to the rural areas of the Province of Manitoba. Subsequently, at the meeting of the Executive Committee of the Association on Nov. 16th, a report was presented when Drs. J. A. Hillsman and P. H. T. Thorlakson were re-appointed representatives of the Association, with power to add.

### Visit From Director, Associated Medical Care Plans

The three-day visit of Mr. Frank Smith, Director, Associated Medical Care Plans of the United States, afforded an opportunity for the members of the profession to hear something of the modus operandi of prepaid medical care plans in our neighbouring country. Mr. Smith was the official guest of the Manitoba Medical Service which holds an associate membership, as distinct from full membership, in the Associated Medical Care Plans. During his stay he went into various features of the Manitoba plan, and several points were discussed with the Board of Trustees at a dinner in the Fort Garry Hotel on Thursday, Nov. 20th, 1947, when Dr. W. G. Beaton was host, and invited guests included Dr. F. G. McGuinness, President, Canadian Medical Association; Dr. C. E. Corrigan, President, Winnipeg Medical Society; Dr. A. Hollenberg and Dr. M. R. MacCharles, original members of the Board of Trustees, and Dr. M. T. Macfarland, Executive Secretary, Manitoba Medical Association. At a meeting of the Winnipeg



Medical Society on Friday, Nov. 21st, the recently completed Theatre "A" would easily have accommodated an additional fifty persons. Mr. Smith was the chief speaker, and in the best manner of a public relations officer, and one who had been active in the Physicians' Service of California before assuming his present post as co-ordinator of prepaid medical care plans in the United States, he carried his audience through some of the early history of the schemes until the present stage where 57 different plans are operative in 42 of the 48 states of the Union, and membership approximates 7 millions. By means of the black cow-thistle-mocking bird definition of a miracle he drew the attention of the audience to the difficulties of operating during the trial period a scheme which would completely satisfy all participants, lay and medical, but he made the point that privileges enjoyed by the profession also entail responsibilities of co-operation and compromise. By inference and in answer to direct questions from the audience, Mr. Smith asserted that few plans in the United States were offering the complete coverage of Manitoba Medical Service, Plan "B," that none had separate general practitioner and specialist scale of fees for the same procedure, and that as long as that method continued it would be well-nigh impossible to pay professional bills at 100% or to establish a reserve so vitally required by any scheme to provide for some unexpected drain on the available funds. Altogether the session was very much worthwhile, and it is hoped that Mr. Smith's remarks may be available for some future issue of the Review. Several members of the profession admitted that while the first impulse had been to remain at home for the evening, the program had recompensed them for any inconvenience. Many more of those who have had some difficulty in understanding the workings of the plan might have profited from attendance.

### Income Statistics

A questionnaire dealing with Medical incomes for the years 1939-44-45-46 has been sent to medical practitioners in Canada. The form, when completed, is mailed to the Canadian Medical Association, where the name stub is detached before the form is forwarded to the Dominion Bureau of Statistics. It is hoped that all returns will be made by Dec. 31st, 1947.

### Control of Radiation From Electro-Medical Apparatus

The Department of Transport, Radio Division, has already contacted and sent circulars to medical men dealing with control of electro-medical apparatus. The information is contained in circulars No. S-11-13-28, dated Oct. 27, 1947, and No. S11-

13-35, dated Oct. 27, 1947. A list of approved makes and the name of manufacturer is available. Mr. G. Gray, Radio Division, Department of Transport, Room 539, Dominion Public Building, will furnish advice upon request.

### C.P. & S. Notes 1948 Register

Plans are underway for the consolidation of office routine and the avoidance of needless overlapping of procedures. Lists of doctors registered in the province are required for many different purposes. It is essential that these lists, with addresses and other relevant information are up-to-date and correct in detail. It is proposed to enclose the notice for annual fees payable to the College of Physicians and Surgeons also the letter concerning membership in the Canadian Medical and Manitoba Medical Associations in the same envelope, and to enclose an information card which it is hoped each doctor in the province will complete and return to 604 Medical Arts Bldg., Winnipeg. Since the information will be used for the 1948 Register, each member is requested to list and submit for verification any degrees and qualifications which have not previously been included. It is imperative that we have your co-operation.

### C.M.A. Annual Meeting

The expenses in connection with entertainment on the occasion of the C.M.A. Annual Meeting in June, 1947, were guaranteed by the College of Physicians and Surgeons of Manitoba, the Manitoba Medical Association and the Winnipeg Medical Society. The generosity of the College of Physicians and Surgeons in underwriting the whole amount of the deficit is gratefully acknowledged by the Sister Associations and by the profession-at-large.

### Temporary Licensing

An Act to amend the Medical Act which was assented to April 26th, 1947, provides for temporary licensing of those medical graduates who meet the requirements of the College of Physicians and Surgeons of Manitoba and who are (a) members of His Majesty's permanent forces, (b) full time employees of the Canadian Red Cross Society, (c) full time graduate hospital internes, (d) full time employees of the Dominion or Provincial Government. Each license is valid only in Manitoba, and in the case of employees of the Federal or Provincial Governments is limited to the first twelve months of such employment. The fees are small and may be credited against future complete registration as a member of the College of Physicians and Surgeons. Information may be secured from the office of the Registrar.

## Department of Health and Public Welfare

### Comparisons Communicable Diseases — Manitoba (Whites and Indians)

DISEASES	1947		1946		TOTALS	
	Oct. 5 to Nov. 1, '47	Sept. 7 to Oct. 4, '47	Oct. 6 to Nov. 2, '46	Sept. 8 to Oct. 5, '46	Dec. 29, '46 to Nov. 1, '47	Dec. 30, '45 to Nov. 2, '46
Anterior Poliomyelitis	20	112	6	15	581	46
Chickenpox	119	36	164	94	1012	1150
Diphtheria	3	3	21	15	68	166
Diphtheria Carriers	0	0	5	14	16	37
Dysentery—Amoebic	0	1	0	0	1	1
Dysentery—Bacillary	0	0	0	0	7	1
Erysipelas	0	0	3	3	30	61
Encephalitis	11	29	1	1	78	6
Influenza	6	8	4	9	149	190
Measles	59	47	115	78	6596	1853
Measles—German	0	0	1	1	32	23
Meningococcal Meningitis	3	2	1	2	15	17
Mumps	80	26	95	108	1291	2097
Ophthalmia Neonatorum	0	0	0	0	1	0
Pneumonia—Lobar	6	10	14	13	169	160
Puerperal Fever	0	0	1	0	2	3
Scarlet Fever	8	14	46	50	163	530
Septic Sore Throat	0	0	1	2	13	34
Smallpox	0	0	0	0	0	0
Tetanus	0	0	0	0	4	1
Trachoma	0	0	0	0	2	2
Tuberculosis	208	197	100	99	1360	852
Typhoid Fever	0	1	2	1	6	20
Typhoid Paratyphoid	0	0	0	1	0	3
Typhoid Carriers	0	0	1	0	1	3
Undulant Fever	0	0	1	0	7	20
Whooping Cough	82	65	37	38	1007	863
Gonorrhoea	157	128	171	206	1709	2072
Syphilis	53	43	66	48	511	582
Diarrhoea and Enteritis, under 1 yr.	5	27	23	34	143	207

#### Four-Week Period, October 5th to November 1st, 1947

DISEASES (White Cases Only)	*718,699 Manitoba	*606,000 Saskatchewan	*3,825,000 Ontario	*2,962,000 Minnesota
Anterior Poliomyelitis	20	22	97	24
Chickenpox	119	170	520	---
Diarrhoea and Enteritis	5	---	---	---
Diphtheria	3	8	10	17
Diphtheria Carriers	---	1	---	22
Dysentery—Amoebic	---	---	3	6
Dysentery—Bacillary	---	---	1	6
Erysipelas	---	1	---	---
Infectious Jaundice	---	---	1	---
Influenza	6	---	13	4
Leth. Encephalitis	11	9	---	3
Malaria	---	---	---	15
Measles	59	56	205	307
Measles—German	---	6	41	---
Mumps	80	58	645	---
Meningococcal Meningitis	3	---	7	4
Pneumonia Lobar	6	---	---	---
Scarlet Fever	8	8	172	140
Septic Sore Throat	---	---	32	---
Tuberculosis	208	56	101	244
Typhoid Fever	---	2	7	4
Typh. Para-Typhoid	---	2	1	---
Undulant Fever	---	---	2	19
Whooping Cough	82	31	285	336
Gonorrhoea	157	---	459	---
Syphilis	53	---	238	---

\*Approximate population.

**Poliomyelitis** is now appearing only as sporadic cases but the total for the year to date (Nov. 19th) is 599 with 7 deaths. Most of the cases have made a complete recovery and the balance are still improving under treatment.

**Diphtheria**—According to present number of cases reported, is the least since 1937. Keep up the immunization and we can wipe out this disease.

**Encephalitis** has not been so common nor so fatal as in 1941. Eighty cases with six deaths have been reported to date. Saskatchewan and North Dakota have also experienced epidemics this year.

**Typhoid and Paratyphoid Fevers** are on the decrease according to present figures for the year.

**Tuberculosis** shows an increase because of intensive case finding through surveys. We are short of sanatorium beds to care for all of these cases.



#### DEATHS FROM REPORTABLE DISEASES

##### For Four-Week Period October 7th to November 4th, 1947

**Urban**—Cancer, 48; Influenza, 2; Pneumonia Lobar (108, 107, 109), 1; Pneumonia (other forms), 6; Poliomyelitis, 2; Syphilis, 1; Tuberculosis, 14; Whooping Cough, 1; Diarrhoea and Enteritis (under 2 years), 1; Tetanus, 1; Dysentery, 1; Diseases of Pharynx 1. Other deaths under 1 year, 17. Other deaths over 1 year, 163. Stillbirths, 9. Total, 189.

**Rural**—Cancer, 23; Lethargic Encephalitis, 1; Pneumonia Lobar (108, 107, 109), 1; Pneumonia (other forms), 9; Syphilis 2; Tuberculosis, 15; Diarrhoea and Enteritis (under 2 years), 4. Other deaths under 1 year, 15. Other deaths over 1 year, 158. Stillbirths, 17. Total, 190.

**Indians**—Cancer, 1; Influenza, 2; Pneumonia (other forms), 4; Tuberculosis, 11; Diarrhoea and Enteritis (under 2 years), 1. Other deaths under 1 year, 6. Other deaths over 1 year, 5. Stillbirths, 0. Total, 11.

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